

Amendments to the Description

Please amend paragraph [0001] as follows:

[0001] This application is related to U.S. Patent Application No. 10/670,655, ~~Attorney Docket No. 1062/D42~~, entitled “Detection System and Method for Aerosol Drug Delivery”; ~~U.S. Patent Application No. _____, Attorney Docket No. 1062/D43~~, entitled “~~Metering System and Method for Aerosol Delivery~~”; U.S. Patent Application No. 10/671,278, ~~Attorney Docket No. 1062/D45~~, entitled “System and Method for Aerosol Delivery” (now US Patent 7,021,560); and U.S. Patent Application No. 10/670,924, Attorney Docket No. 1062/D46, entitled “Valve System and Method for Aerosol Drug Delivery”; all filed contemporaneously herewith, the entire disclosures of which ~~is~~ are incorporated herein by reference.

Please amend paragraph [0028] as follows:

[0028] In one embodiment, the system includes a second processor (~~not shown~~) 109 that is configured to calculate a volume of the aerosolized fluid, and is further configured to output a volume signal associated with the calculated volume. In this embodiment, the amount of fluid allowed to enter target region 106 is associated both with the volume of air region 103a and with the aerosol volume.

Please amend paragraph [0035] as follows:

[0035] Atomizer 202c is coupled to air flow sensor system 205. Air flow sensor system 205 can be any known system for measuring air flow or pressure of the aerosolized drug

to be output to a patient. For example, air flow sensor system 205 can include an anemometer, a pin-wheel sensor, or any other sensor operable to measure air flow, flow rate or pressure. In the embodiment shown, air flow sensor system 205 is a light scatter detection system that includes light source 205a, light detector 205b, and pressure sensor 205c. Processor 204 is coupled to light source 205a, light detector 205b and pressure sensor 205c. Processor 204 is configured to receive a light detection signal 205b and pressure or air flow signal from pressure sensor 205c, and calculate the aerosol volume inside air flow sensor system 205. As stated above, this system is described in detail in copending United States Patent Application titled “Detection System and Method for Aerosol Delivery,” Serial Number 10/670,655 [[09/_____]].

Please amend paragraphs [0039] and [0040] as follows:

[0039] Figure 4 is a schematic diagram of an acoustic volume sensor according to an embodiment of the invention. In this embodiment, acoustic volume sensor enclosure chamber 400 includes first volume 401 and second volume 402, separated by printed circuit board 403. First microphone 404 is acoustically coupled to first volume 401, and second microphone 405 is acoustically coupled to second volume 402.

[0040] Printed circuit board 403 contains an acoustic source, which can be, for example, a piezoelectric speaker. In one embodiment, one or both of first microphone 404 and second microphone 405 is attached to printed circuit board 403. Printed circuit board 403 can include, in one embodiment, an inner layer configured to pass electrical signals. Printed circuit board 403 is coupled to acoustic volume sensor enclosure 400 in a way that forms a substantially air-tight seal. In one embodiment, printed circuit board 403

includes a hole to equalize pressure between the first volume and the second volume. In this embodiment, the hole is small enough so as to not adversely impact the acoustic qualities of the system.